

Attorney Docket No. 233-583-USP

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims**

1 - 50 (canceled)

51 (currently amended): A method for switching a packet comprising:

Introducing a packet ~~the packet~~ into a first port of a first line card of a first base rack;  
transmitting the packet from the first line card through a first backplane to a first switch card of the first base rack;  
transmitting the packet ~~across a connector which joins from a first cascade port on~~ the first switch card to ~~a second cascade port on a second switch card of a~~ second base rack coupled to the first switch card; ~~wherein the connector includes an optical fiber and wherein transmitting the packet from the first cascade port to the second cascade port includes converting the packet to an optical signal;~~  
transmitting the packet from the second switch card through a second backplane to a second line card on the second base rack; and  
transmitting the packet out of a second port of the second base rack.

52 (original): The method of claim 51 wherein transmitting the packet from the first switch card to the second switch card includes reading a second port number and determining the second port number is associated with the second base rack.

53 - 55 (canceled)

56 (currently amended): The method of ~~claim 55~~ claim 51 wherein transmitting the packet from ~~the first cascade port on the first switch card to the second cascade port on the~~ second switch card further includes buffering the packet on the second switch card.

57 (original): The method of claim 51 wherein introducing the packet into the first port of the first line card includes converting the packet from an optical signal to an electrical signal.

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58 (original): The method of claim 57 wherein introducing the packet into the first port of the first line card further includes performing a physical layer conversion.

59 (original): The method of claim 58 wherein introducing the packet into the first port of the first line card further includes performing fast-path packet processing.

60 (original): The method of claim 58 wherein introducing the packet into the first port of the first line card further includes performing slow-path packet processing.

61 (original): The method of claim 51 wherein transmitting the packet through the first backplane includes segmenting the packet into at least one cell.

62 (original): The method of claim 61 wherein segmenting the packet creates a payload of 64 bytes.

63 (original): The method of claim 61 wherein segmenting the packet creates a payload of 128 bytes.

64 – 66 (canceled)

67 (original): The method of claim 51 wherein transmitting the packet through the second backplane includes placing the packet in a priority output queue on the second switch card.

68 (original): The method of claim 67 wherein transmitting the packet through the second backplane further includes scheduling to use the second port.

69 and 70 (canceled)

71 (original): The method of claim 51 wherein transmitting the packet out of a second port of the second base rack includes processing the packet by the second line card.

72 (original): The method of claim 71 wherein processing the packet includes reassembling at least one cell into the packet.

73 (original): The method of claim 71 wherein processing the packet further includes performing a physical layer conversion.

74 (original): The method of claim 71 wherein processing the packet further includes converting the packet from an electrical signal to an optical signal.

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75 (original): The method of claim 51 wherein transmitting the packet from the first line card includes buffering the packet in a set of queues associated with a packet processor on the line card.

76 (original): The method of claim 51 wherein transmitting the packet to the first switch card includes buffering the packet in a set of queues associated with a flow control ASIC on the switch card.

77 (original): The method of claim 51 wherein transmitting the packet from the first switch card to the second switch card includes routing the packet through a crossbar on the first switch card and buffering the packet in a first queue dedicated to a cascade port on the first base rack.

78 (canceled)

79 (original): The method of claim 51 wherein transmitting the packet from the second switch card through the second backplane includes routing the packet through a crossbar on the second switch card and buffering the packet in a queue between the crossbar and the second backplane.

80 (original): The method of claim 51 wherein transmitting the packet through the second backplane to a second line card includes buffering the packet in a queue on the second line card dedicated to a destination port.

81 (new): A method for switching a packet comprising:

Introducing the packet into a first port of a first line card of a first base rack;

transmitting the packet from the first line card through a first backplane to a first switch card of the first base rack by segmenting the packet into at least one cell; wherein segmenting the packet includes:

staging packet data at an SRAM;

waiting for packet header processing to be completed;

placing a request for first backplane arbitration into a priority queue;

winning first backplane arbitration; and

reading packet data from the SRAM;

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transmitting the packet from the first switch card to a second switch card of a second base rack coupled to the first switch card;

transmitting the packet from the second switch card through a second backplane to a second line card on the second base rack; and

transmitting the packet out of a second port of the second base rack.

82 (new): The method of claim 81 wherein segmenting the packet additionally includes reading a cell-size from an SRAM and high-speed serial transmission of the at least one cell across the first backplane to the first switch card.

83 (new): The method of claim 81 wherein segmenting the packet additionally includes placing the at least one cell in a buffer on a first Flow Control ASIC (FLC) on the first switch card.

84 (new): A method for switching a packet comprising:

introducing the packet into a first port of a first line card of a first base rack;

transmitting the packet from the first line card through a first backplane to a first switch card of the first base rack;

transmitting the packet from the first switch card to a second switch card of a second base rack coupled to the first switch card;

transmitting the packet from the second switch card through a second backplane to a second line card on the second base rack by:

placing the packet in a priority output queue on the second switch card;

scheduling to use the second port;

sending the packet from a first FLC to a crossbar;

routing the packet through the crossbar; and

buffering the packet at an egress buffer on a second FLC;

transmitting the packet out of a second port of the second base rack.

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85 (new): The method of claim 84 wherein transmitting the packet through the second backplane further includes determining a credit at a receiving queue on the second line card and high-speed serial transmission of the packet across the second backplane.

86 (new): A method for switching a packet comprising:

Introducing the packet into a first port of a first line card of a first base rack;

transmitting the packet from the first line card through a first backplane to a first switch card of the first base rack;

transmitting the packet from the first switch card to a second switch card of a second base rack coupled to the first switch card by:

routing the packet through a crossbar on the first switch card;

buffering the packet in a first queue dedicated to a cascade port on the first base rack; and

buffering the packet in a second queue associated with a flow control ASIC on the second switch card;

transmitting the packet from the second switch card through a second backplane to a second line card on the second base rack; and

transmitting the packet out of a second port of the second base rack.